Mission

The Joint Advanced Warfighting School produces graduates that can create campaign-quality concepts, plan for the employment of all elements of national power, accelerate transformation, succeed as joint force operational / strategic planners and be creative, conceptual, adaptive and innovative.

Disclaimer: The views expressed in this journal are those of the authors and do not represent the views of the Joint Forces Staff College, National Defense University or the Department of Defense.
Welcome to the inaugural issue of the journal of the Joint Advanced Warfighting School (JAWS). Campaigning is dedicated to joint planning practitioners of the combatant commands and Joint Staff. We are excited about the interest in this publication and hope that it fosters a sense of community for joint campaign planners throughout the world. Campaigning is first and foremost dedicated to providing planners with a source of insight into current issues regarding planning. It is our expressed desire that the interest in Campaigning will continue to grow due to the unique audience we serve and the contributions to our journal from its readers.

In this volume of Campaigning, Dr. Milan Vego, the author of Operational Warfare has contributed a thought provoking piece on the recently approved six phase construct for campaign planning. Fred Stein, co-author of Net Centric Warfare and Hugh Kelley have contributed a work addressing the implications of Net Work Centric Warfare at the operational level. Planning practitioners from the United States Pacific Command (PACOM) have also taken time from their busy schedule to contribute to making this journal a success. Representing the PACOM Standing Joint Force Headquarters (SJFHQ), Brad Kaplan and Lieutenant Commander Dave Fields, describe the process used to integrate Effects Based Operations into the military decision making process. Also in this issue you will find the status of the awarding of the Master of Science in Joint Campaign Planning and Strategy as well as recently published case studies and the JAWS war plan collection, all of which are available online. As you can see, this is a very exciting publication.

It is our hope that Campaigning will continue to grow. Future issues will contain a letters to the editor section which is designed to provide a venue for planners who are too busy to write a complete article to respond or provide an alternative point of view on provocative issues.

And most importantly, for this journal to succeed, we need your input. Campaigning clearly serves a unique population, joint campaign planners. There is not another journal that focuses exclusively on topics required by joint campaign planners to defeat our nation’s enemies. Campaigning will continue to focus on issues that are intended to serve as a resource for planners responsible for ensuring success in the Global War on Terrorism and protecting the United States and our way of life.

If you would like to be placed on the electronic distribution list for Campaigning or would like to respond or comment on an article please email your request or comments to bollenbergc@jfsc.ndu.edu.

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Campaign Phasing and the New Joint Publication 5-0

By

Dr. Milan Vego

The latest JP 5-0 Joint Operation Planning Draft, Final Coordination (29 December 2005), like its third draft (10 August 2005), represents in many ways a radical departure from the versions of the same document issued prior to 2003. The authors of the newest version of JP-5-0 apparently tried to retain traditional elements of operational planning while at the same time incorporating the so-called System of Systems Analysis (SoSA) to a military situation or what Effects Based Operations (EBO) proponents call the “operational environment.” Center of Gravity (COG) is properly defined but the entire concept is made essentially useless by adopting a systems approach to the COG. Another problem with JP 5-0 is that the authors replaced the four phases of campaign planning with six phases (see Figure 1).

![Figure 1: Notional OPLAN Phases Versus Level of Military Effort](image)

Despite their claims to the contrary, the new construct appears to be prescriptive rather than descriptive. If actually applied in practice, the new phasing of a campaign will significantly limit the combatant commander’s ability to plan and execute a campaign based on strategic guidance received from the national authorities and the situation.
The new construct of campaign phasing as described in the third draft of the JP 5-0 is actually termed “Notional Operation Plan Phases Versus Level of Military Effort.” This is very odd because normally a campaign is divided into a number of phases without explicitly focusing on an OPLAN. Phase 0- Shaping (Global and Theater Shaping) as explained by the authors consists of joint force, interagency, and multinational operations aimed to “dissuade or deter potential adversaries and to assure or solidify relationships with friends and allies.” These actions are intended to “shape” perceptions of both adversaries and allies. They must “adapt to a particular theater environment and may be executed in one theater in order to achieve an effect in another.” These actions are conducted continuously in support of “defined military and national strategic objectives.” So-called “global and theater shaping” measures are clearly the domain of national or alliance/coalition strategy and policy and not the combatant commander’s responsibility. This was finally recognized in the final coordination draft of JP 5-0, but not in the third draft. Normally, a campaign is planned by the theater commander and is aimed to accomplish a single theater-strategic objective, not a national strategic objective. Likewise, Phase I-Deter is normally associated with political, diplomatic, military, economic, financial, informational and/or other measures and actions in a crisis. They are orchestrated by the national authorities and should not be part of campaign plan. A combatant commander also does not have the authority to order mobilization or strategic deployment. However, it is in this phase of a conflict or war, when deployment of selected combat forces might be planned (by a combatant commander) to produce a deterrent effect. In short, Phase 0 and Phase I as described in JP-5.0 should not be presented as part of an OPLAN as the authors did in both the third draft and final coordination draft of JP 5-0.

Phase II-Seize the Initiative and Phase III-Dominate in the latest draft of JP 5-0 clearly imply that U.S. forces will always be on the offensive. Yet this might not be true in some situations, for instance, a conflict on the Korean Peninsula or in the western Pacific. United States forces and their coalition partners might find themselves first on the defensive before beginning a counteroffensive. Another major problem with suggested phasing of a campaign is that it blurs or totally obscures major phases of a campaign (pre-major combat, major combat, and post-major combat or post-conflict) with phases within a major combat phase and post-major combat phase. Phases within a major combat phase would be normally planned after each intermediate-operational objective (usually on land) is accomplished. In some cases they may be unplanned due to some higher than anticipated enemy resistance, inadequate logistical support and sustainment or even severe weather as happened during Operation Iraqi Freedom (OIF). Nowhere do the authors of the new phasing construct discuss the accomplishment and consolidation of the theater-strategic objective. Another major omission is the lack of any mention of conflict or war termination. This is surprising because they discuss in some detail what they call “termination” in the final coordination draft of JP 5-0. Why the term conflict or

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2 Ibid., p. IV-37.

3 Joint Publication 5-0: Doctrine for Joint Operation Planning Draft, Final Coordination, 29 December 2005, p. IV-8 thru IV-10.
war termination is not used is not explained. The use of the term “termination” only further
confuses the issue. Among other things, the same term is used for the handover of authority to
the indigenous government or an international body at the conclusion of stabilization and
reconstruction. Conflict/war termination is one of the principal responsibilities of the national or
coalition strategic leadership. It is a domain of strategy and policy. However, it is true that the
combatant commander must plan for the operational aspects of conflict/war termination based on
guidance received from higher political authority. Combatant commanders should prepare a
separate plan for conflict/war termination dealing with its operational, not strategic or policy
aspects. Obviously, such a plan must be closely related to the basic campaign plan. Lack of
planning for conflict termination resulted in considerable difficulties in the post-conflict phase.
Conflict termination is a bridge between the major combat phase and post-conflict phase. It is
one of the key prerequisites for achieving the ultimately desired (strategic) end state. Successful
conflict termination signified military victory; while political victory is not attained until the
desired (strategic) end state is achieved.

In generic terms, strategy and policy provide an overarching framework for campaign planning.
A campaign provides, in turn, the operational framework for the subordinate service and
functional component commanders in planning respective major operations. In generic terms,
any conflict or war can be divided roughly into three distinctive but overlapping phases: pre-
hostilities, hostilities, and post-hostilities. These phases at the same time provide a framework for
both policy and strategy and campaign planning. The corresponding phases for a campaign are:
pre-major combat, major combat, and post-major combat phase, respectively (see Figure 2).
Strategy and policy are conducted without interruption throughout all phases of conflict or war.
However, their role in the major combat phase is obviously less pronounced than in the other two
phases. The strategic objective is accomplished in the major combat phase, while its
consolidation takes place in the post-major combat phase. All phases of a campaign should
comprise a seamless whole; otherwise the entire campaign plan would be highly fragmented. All
the efforts and sacrifices made in the major combat phase can be squandered unless the strategic
success is ensured in the post-major combat phase. Hence, in generic terms, a campaign should
comprise separate but highly integrated plans for pre-major combat, major combat, and post-
major combat or post conflict phase. A combatant commander also has the responsibility to
prepare a plan for conflict or war termination.

Normally, mobilization, pre-deployment, and strategic and operational deployment take place
during the pre-major combat phase. Deployment may also continue into the major combat phase.
However, the major part of one’s forces should be fully deployed in the theater prior to the start
of hostilities. In defense, it is more likely that the defender will continue deploying his combat
forces well into the major combat phase. Initially this phase may consist of a single offensive
phase or it can encompass an initial defensive phase followed by the offensive phase. The
operational commander and his staff plan a series of major operations and some tactical actions in this phase of a campaign.

In case of a regional conflict, normally, a single campaign would result in a positive or negative outcome for one’s side. In that case, the post major combat phase would coincide with the post-conflict phase. However, in case of a larger conflict, several campaigns might be required in order to accomplish the ultimate national or alliance/coalition strategic objective. Then, only the last campaign would have a post-conflict phase, while all the others would end with the post major combat phase.

The post-conflict phase, in turn, consists of several interrelated phases collectively called stabilization and reconstruction. The post-conflict phase ends with the so-called termination or transition phase when the occupying power hands over the authority to the elected indigenous government or to an international body. This point also signifies political victory.

**Conclusion**

Sound joint doctrine should be descriptive rather then prescriptive. Hence, doctrine should not prescribe the number of campaign phases, their designation or their content. Phases of a campaign cannot be predetermined and one should not rigidly lay down the number of phases
and their names. Joint doctrine should limit itself to describing three generic campaign phases in broad terms. The current attempts in U.S. joint doctrine to arbitrarily divide the campaign into six phases and prescribe a standardized format to any situation and any enemy are misguided. Old-fashioned and still valid terms such as strategy and policy should be used instead of the term global shaping or theater shaping. Major phases should be based on the strategic objectives to be accomplished, and not on some pre-determined, lofty-sounding but essentially meaningless terms such as “seize the initiative” and “dominate.” The number and designations of phases should be left to the discretion of the respective combatant commander. It is the mission and the situation alone that should determine the number, designation, and duration of each phase in a campaign.

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Network Centric Warfare at the Operational Level

By
Fred Stein
Hugh Kelley

Introduction:
As American Forces engage in 21st century warfare, success depends on their ability to leverage the advances in information technology. Early innovators coined the term “network centric warfare” to describe a form of warfare that reflects the new relationships that advanced technology enables between decision makers, sensors, and effectors on the battlefield; more recently, the term has been shortened to “netcentric.” While it is clearly too soon to fully understand the impact of the Information Age on warfare, recent events in Iraq can help the Armed Forces to understand what trends are developing.

The Office of Force Transformation recently sponsored a series of case studies focusing on the effects of information-intensive approaches on the battlefield. The study topics include the use of information in coalition warfare in NATO, the early Stryker Brigade Combat Team at JRTC, the 3rd Infantry in OIF, Western Iraq, and air-to-air combat; ongoing studies examine urban warfare, the Stryker Brigade in combat, and others to include non combat examples like SARS. The Army War College (AWC) has also conducted a study that explores the impact of information on combat actions. Since the AWC focuses on the operational and strategic levels of war, this study may be of particular interest. The present article summarizes the AWC study, which was performed by The MITRE Corporation. It draws directly from three major sources:


3. Interview with LTG McKiernan

Readers should refer to these sources for additional details and explanations not covered in this paper.

New Processes
Network centric operations (NCO) leverage the new relationships among sensors, decision makers, and effectors (weapon platforms). This leveraging results in tighter sensor-to-shooter links at the tactical level. NCO can also provide the ability to manage operational tempo, thereby allowing a higher degree of operational flexibility and response. As more warfighters experience the impact of advanced information technology on the battlefield they develop innovative ways to apply its capabilities. This learning process is reflected in the development of new positions
and organizations. For example, during the advance on Baghdad both V Corps and 3rd ID created the position of Information or Knowledge Officer, which combined some of the responsibilities of the Chief of Staff with those of the G2, G3, and G6. Some of the new duties include helping the commander understand the systems available to provide him with information, the characteristics and limitations of these systems, and how each system’s information can be displayed, distributed, and – most important – exploited.

NCO depends on the existence of an information infrastructure grid that supports information sharing and on effective management of that infrastructure. It requires “new thinking” in terms of:

- How to organize sensors into temporary networks to provide information advantage,
- How to organize combat units and weapons platforms that exploit the information advantage,
- How to organize staffs to exploit new forms of information sharing,
- How to exploit new information flows to support the commander’s critical information requirements, and
- How to exploit new information to answer the commander’s questions about actions that must be taken rather than updating him on what has taken place.

US Forces at all levels of command, from the Joint Theater Commander down to the tank commander, have already internalized and applied some of that “new thinking” during Operation Iraqi Freedom (OIF). The remainder of this paper reviews how the Combined Forces Land Component Command (C/JFLCC) and its commander, LTG David McKiernan, translated NCO tenets and characteristics into new organizations, processes, and procedures and applied them at the operational level of war which he conducted in support of the overall strategic plan developed by General Franks. This paper will focus on the changes that LTG McKiernan made in his staff to utilize the new information capabilities focuses in particular on the approaches used to organize staffs so that they could exploit new forms of information sharing.

**Organization and Reorganization of the C/JFLCC**

**1. Operational Requirements**

The design of the command and control (C2) architecture plays an extremely important role in any campaign, particularly in large-scale ground combat operations. The C2 structure must remain the purview of the Joint Force Commander (JFC) who, with his staff, must determine the

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iv NOTE: Term C/JFLCC, C/JFLCC, and C/C/JFLCC are essentially the same for purposes of this paper. The difference in meaning – presence or absence of joint or coalition forces – is becoming moot in 21st century warfare.

v Sometimes the term C4 is used rather than C2; one must be very cautious when doing this.

vi p73, On Point: The US Army in OIF (through 1 May 2003), USA TRADOC CALL, Aug 2004 (hereafter referred to as “On Point”)
relationship between the traditional hierarchical organization, the emerging communities of interest (COIs), and the data and network structure provided by information engineers working for the G6 and G2. This set of relationships is even more vital in joint and combined operations, where the social and cultural domains will affect the sharing of information even as the G2 and G6 work through the intelligence and signal issues.

The JFC establish functional component commands to integrate planning, reduce the traditional normal span of control, and/or significantly improve combat efficiency, information flow, unity of effort, weapon systems management, component interaction, and control over the scheme of maneuver. JFC considerations when forming a joint *land* force component include:

- Expected duration of the mission, i.e., long enough to merit increased lead time to staff the organization, train personnel, and establish C4 and other support systems.
- Anticipated phasing of land operations, e.g., the simultaneous or sequential introduction of land forces into the theater of operations.
- Deployment of land forces, e.g., contiguous or non-contiguous areas of operation
- Requirements for one land force to support another land force, e.g., Army logistical support to Marine forces operating inland.
- Amount, level of intensity, and coordination required for other joint force components’ support to the land forces.
- Composition and participation of land forces from other nations – multinational land force operations.
- Desire of the establishing JFC to simplify C2 for planning and execution of joint force land operations, particularly coordinated and concurrent multinational and interagency operations in a joint operational area.

The C/JFLCC plans, synchronizes, executes, and assesses major land operations that accomplish JFC campaign objectives. It prepares a supporting joint land operations plan that provides the intent, concept of operations, and supporting details to achieve land force unity of effort. The C/JFLCC directs current land operations while continuing to plan and prepare for future land operations with the JFC and other component commanders.

In DESERT STORM the CENTCOM commander, General Norman Schwarzkopf, elected to command the ground operations himself, without a land component commander to integrate ground operations. By contrast, for Operation Iraqi Freedom (OIF), CENTCOM commander General Tommy Franks decided to establish a C/JFLCC to command the operations of all Army, Marine, and coalition ground forces then envisioned for a ground war in Iraq on 20 November 2001, Franks issued a directive establishing Third US Army, based at Fort McPherson, Georgia,

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vi Sec 1a, C/JFLCC Handbook, USAWC, Coordinating Draft, 2 June 2005 (hereafter referred to as “C/JFLCC Handbook”)

vii Tab A to Annex A, C/JFLCC Handbook

ix P19, C/JFLCC Primer, USAWC, April 2000

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as the C/JFLCC. General Frank’s order gave Third Army the basis and the authority to organize and staff the headquarters as a C/JFLCC. In the winter and spring of 2001–02, prior to OIF, Third Army served as the C/JFLCC for OEF in Afghanistan and throughout the region. Much of the Third Army Headquarters (HQ) was deployed at its forward command post at Camp Doha, Kuwait, but by late spring 2002 had redeployed to Fort McPherson. Third Army’s organization was the traditional structure of administrative, intelligence, operations, and logistics displayed in Figure 1.

![Figure 1: C/JFLCC/Third Army Organization during Operation Enduring Freedom (Feb 2002)](image)

LTG David McKiernan assumed command of Third Army/C/JFLCC on 7 September 2002. Commissioned in 1972, he had commanded a tank battalion, an armored brigade, and the 1st Cavalry Division. He served with VII Corps in DESERT STORM, where he ran the corps tactical command post, and with NATO as G2/G3 (Intelligence and Operations) in the Allied Rapid Reaction Corps, where he learned NATO and coalition staff procedures. LTG McKiernan applied this experience and understanding of both coalition and joint warfare to the task of reorganizing the C/JFLCC for OIF.

C/JFLCC theater-wide functions vary from theater to theater and operation to operation. The capabilities to perform these functions normally reside in the joint force Service components, government and nongovernmental agencies, multinational forces, and/or host-nation resources.

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**Footnotes:**

1. Pp 73-4, On Point
2. Ibid
3. Xx, C/JFLCC Handbook
OEF was executed by a relatively small, US-only, multi-agency (but Army dominant) force supporting and supported by paramilitary tribal forces against predominantly paramilitary forces and terrorists. By contrast, OIF would be executed by a large US joint force fighting as a member of a coalition force against a fairly substantial conventional force as well as a sizable paramilitary force. LTG McKiernan therefore concluded that the C/JFLCC running the ground forces for OEF would have to change for OIF.

It was clear to LTG McKiernan that while C/C/JFLCC might look like a traditional hierarchy organization it had to function differently. In particular, it had to allow COIs to share information across traditional barriers – a capability that took on even greater importance as the enemy shifted from the heavy divisions to a guerrilla/terrorist war on the main supply lines. The ability of McKiernan’s staff to operate in a cross-functional manner played a key role in providing him with the ability to identify and execute necessary next steps on the battlefield.

2. Operational Functions

LTG McKiernan determined that the projected characteristics of the Iraqi war and the C4I capabilities emerging from the DOD’s force transformation required a reorganization of the C/JFLCC away from the traditional structure of administrative, intelligence, operations, and logistics and toward the operational functions that C/JFLCC would perform during the impending war with Iraq. Using the existing staff sections as a starting point, LTG McKiernan directed the staff to organize around the functions of C4, movement and maneuver, intelligence, fires and effects, logistics (sustainment), and protection. This functional alignment would enable the commander and senior staff to maintain more “holistic situational awareness” across the contributing operating systems.

3. Operational Approach and Procedures

LTG McKiernan focused the reorganization of C/JFLCC/Third Army HQ on a combined objective-based, effects-based operational approach supported by moving staff officers and NCOs from the traditional staffs organization to the newly formed functional organizations and procedures that would promote the information sharing, collaboration, and synchronization necessary to achieve execution superiority over Iraqi military and paramilitary forces. Today’s information system, data, and network topographies often mirror the organizational hierarchies, which allows for a very stable network but hinders agility, i.e., the ability to adjust to changing force structures. The C/JFLCC implemented internal and external processes and procedural changes for each operational function in each staff section, between staff sections, and with external staff sections – CENTCOM, C/JFACC, C/JFMCC, V Corps, I MEF and 1 UK. These procedural innovations and adjustments addressed:

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xiv Brief “Forming the LCC,” LTG D. McKiernan USAWC DMSPO, Course Material – Joint Land Component Commanders Course, 2004-05

xv JP 3-31, Command and Control for Joint Land Operations, Mar 2004

xvi Interview, LTG D. McKiernan, FORSCOM HQS, Ft. McPherson, 13 July 2004
• Planning
  – Using a systems approach to build a common, shared, holistic perspective of the operational environment to support effects-based planning.
  – Implementing adaptive planning that adjusts and adapts to key strategic and theater variables according to their effect on the operational environment while remaining focused on CFC objectives.

• Collaboration and Coordination
  – Establishing interoperable situation awareness capability with higher, lower, and adjacent activities to ensure a common understanding of the operational situation and the commander’s intent and mission progress.
  – Establishing coordination cells and synchronization boards with permanent membership from all affected/affecting functional organizations to ensure and facilitate harmonious execution of supported and supporting activities.

• Decision Cycle
  – Synchronizing C/JFLCC battle rhythm with the rhythms of higher, lower, and adjacent activities.
  – Altering traditional focus of battle assessments from the current SITREP to an effects-based assessment of recent decisions and collection and fusion of multi-sourced information to support impending decisions.
  – Implementing effects-based battle staff drills to ensure appropriate and timely responses to anticipated events.

• Communications
  – Integrating and synchronizing all systems as a baseline for a common operating picture.
  – Changing the flow of information to accomplish the C/JFLCC’s complex missions.

Figure 2 shows the result of this reorganization. On the surface, principal staff responsibilities and authority remained essentially the same. What changed was that ad hoc collaboration and coordination between staffs were replaced by a deliberate arrangement to ensure each operational requirement was planned, coordinated, and executed in a holistic fashion that addressed all aspects of that requirement. While the C/JFLCC reorganization may appear more evolutionary than revolutionary, the commander’s willingness to establish boards and centers as venues for planning, coordinating, collaborating, synchronizing, and managing cross-functional activities required the courage and determination to break barriers at his command level as well as understanding that his information flow to senior command levels would have to change. The understanding that these changes in the C/JFLCC organization might impact negatively on the communications flow from this headquarters to the higher indicates a strong understanding and support of the higher headquarters. This is in keeping with what the authors understood of General Franks command style.

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xvii Interview, LTG D. McKiernan, FORSCOM HQS, Ft. McPherson, 13 July 2004
The remainder of this paper will examine how the C/JFLCC used this new functional focus to develop and implement processes and procedures that facilitated information sharing, collaboration, and synchronization. These, in turn, enabled and enhanced the C/JFLCC’s battle command of complex, simultaneous coalition/joint operations during OIF.

Planning

Planning at the operational level for a combined/joint campaign has some unique imperatives:

1. Commander’s Intent

The single strongest determinant of success in C2 is the degree to which the C/C/JFLCC’s intent is articulated and understood throughout the land component. No amount of communications assets or manipulation of command relationships will adequately substitute for a clear statement of commander’s intent that is germane to the campaign, precisely articulated, and widely understood. The commander’s intent anchors collective efforts in an increasingly complex, ambiguous or conflicting, data-rich, and fast-paced operational environment. Equally important, this intent frames the boundaries for planning and action by subordinates, thus enabling their development of intent and operational designs.

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xviii Chapter 14, C/JFLCC Handbook
xiix Chapter 2, C/JFLCC Handbook
Intent must address not only pending combat operations, but also what the C/JFLCC envisions for the complete depth of land operations that will support the success of the other components and, most specifically, the JFC’s campaign. Therefore, early in the planning process, the C/JFLCC must determine the major tasks, methods, and desired end state for joint force land operations. Further, the C/JFLCC must decide how to communicate intent to ensure clarity. The commander has several tools available to assist in this endeavor:

1. Video teleconferences in which the commander and his staff provide updates in real time, “face to face,” without the need to travel to the command center;

2. Whiteboard capabilities that allow the staffs and subordinates to meet and share maps and operational concepts in real time; and

3. Web pages, where the commander’s intent and expectations can be posted in a rich format; i.e., with links to information generated by other staffs and commanders. During the march to Baghdad one of the most challenging problems was how to secure the lines of communications. It was apparent that irregular forces were much more of an issue than regular forces. These irregular forces both foreign and domestic faded into the fabric of the communities and used civilians as shields. LTG Mc Kiernan used the tools listed above to make his commander’s intent on how to deal with this problem. His use of these information tools and the reserve forces of the 82nd Air Borne allowed the lines of communications to remain open and the supply lines to flow necessary supplies to the front lines.

2. Transitions

Transitions between phases in the land operation plan must be completely woven into the plan and not be mere operational intersections where friction may occur. Changing command relationships, force mixes, and the participation of coalition members, other government organizations and both intergovernmental and nongovernmental organizations in land component operations all mandate focused, clearly defined objectives.

Adaptive Planning

The C/JFLCC had to continuously monitor and assess the dynamic variables of the theater and the mission. The potential impact of these variables on the campaign plan can vary from increasing the level of difficulty of a given course of action to eliminating it as a feasible approach. Some theater variables of concern during OIF planning included:

- Iraq (will/will not) employ WMD
- Iraqi (will/will not) flood the Euphrates Valley before coalition forces reach Al Kut or An Najaf
- Syria and Iran (will/will not) allow infiltration of evildoers
- Theater access through Turkey (will/will not) be obtained until C-Day
- V US Corps will be available with (1, 2, or 3) divisions on G-Day
Iraq receives (2 or 4) days warning prior to G-day.

C/JFLCC campaign planning adjusted and adapted to these key variables according to their effects on the operational environment and the ability of the land forces to accomplish the mission. The so-called “adaptive planning process” was actually the military decision-making process executed iteratively, in parallel with, and in continuous collaboration with, the planning activities of the CFC/JFC, the other component commands (JFACC, JFMCC, JSOC), and their assigned forces (V Corps, I MEF, 1 UK). Adaptive planning remained focused on CFC objectives while responding to strategic and operational changes as they occur.

![Diagram of C/JFLCC Adaptive Planning](image)

**Figure 3: C/JFLCC Adaptive Planning**

The C/JFLCC developed “branches” or contingency plans for each significant eventuality. They were continuously reviewed and revised as required to provide current and viable alternatives to meet any number of possible strategic events and operational circumstances. This process included enabling the land forces to maintain a flexible posture so that any branch can be executed on short notice.

This very complex set of decision loops were linked by information systems and connected by communication systems – a key aspect of NCO. The staff must therefore understand the restrictions on information flows, which include security levels and culture as well as bandwidth. The G2 and G3 advised the commander about any security risks and promote policies that allowed the vital information flow while retaining the necessary level of security. The commander and the chief of staff were on constant guard against allowing tradition to restrict the flow and sharing of information.

The issue of bandwidth can perhaps be addressed best if the commander decrees that it will be treated as a “Class of Supply” so that it receives the same consideration during operational
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discussions as the other vital classes of supply. This will help focus the staff to allocate bandwidth in line with the mission.

Summary

Below is a summation of the nature of NCO conducted at the operational level during OIF. LTG McKiernan and his staff used more information systems and more connectivity then ever before seen to plan, coordinate and execute the battle plan in support of General Franks. What does this teach us about modern warfare and how does this relate to the concepts of Network-Centric Operations?

- Modern staffs will have to deal with even more complexity and multilevel staff coordination then ever before.
- Information systems can assist to reduce this level of complexity by integrating and displaying information in ways never before available to the commander and staff.
- Bandwidth must be considered as a class of supply and the ability to provide down trace to subordinate commanders is key as well as the ability to monitor and understand the flow up to superior commanders to include the White House.
- The commander must understand the human dimension of his staff and the impact new technology will have on it. He must allow more flexibility in their formations of communities of interest while directing them to think and act outside the norm. For example, the formation of the synchronization boards requiring cross cutting coordination.
- Commander’s Intent remains essential—it anchors collective efforts in an increasingly complex, ambiguous, data-rich, and conflicting environment. Intent must address not only combat operations, but also what the commander envisions throughout the complete depth of the campaign.
- Reality of “shared battlespace” on the ground increases the need for greater coordination among functional components—effective, close integration of land, air, and special operations within a common AO are a significant force multiplier.
- C4I connectivity and C2 agility (command and support relationships) are key—the LCC must take the lead in integrating and synchronizing all systems as a baseline for a common operational picture. Battle command systems must be increasingly integrated into both training and operations. Digital skills for staff and leaders are absolutely essential.
- “Transitions” must be completely woven into the campaign construct—changing C2 relationships, force mix, increasing participation with LCC operations by and with coalition, interagency and nongovernmental organizations (NGOs), all must focus on a common, clearly defined objective with supporting tasks.
The OIF mission of the C/JFLCC required a highly networked staff that was linked to both higher and lower level staffs and functioned both in the traditional hierarchical manner as well as in a cross functional manner. As more and more commanders and staff address the increased complexity of today’s warfare and have to deal with the large amounts of information and interrelationship the model from this C/JFLCC should be very useful.

Fred Stein, a retired Colonel of the United States Army is currently MITRE’s Senior Principal Engineer for Network Centric Warfare and the Director of Operations for Ft. Hood. He co-authored the book “Network Centric Warfare” with David Alberts and John Garstka and has a second book on Network Centric Warfare scheduled for release this year.

Hugh Kelley also retired as a Colonel from the United States Army. He currently serves as a Principal Engineer in MITRE’s Department for Army Enterprise Systems Engineering.
Introduction:

Operational Net Assessment (ONA), a key enabler of Effects Based Operations (EBO), enhances understanding of a potential adversary (Red) or intended party (Green or Gray). However, the ONA process does not fit neatly into the current joint planning process. While very similar to the Joint Intelligence Preparation of the Battlespace (JIPB), ONA databases and Systems of System Analysis (SoSA) are not doctrinally integrated into the JIPB. Thus operational planners must make a specific effort early in the planning cycle to integrate ONA and SoSA or risk a failure to properly incorporate the Effects-Nodes-Action-Resource (ENAR) links, the essence of EBO.

ONA consists of a database of pre-analyzed information based on processed intelligence and collaborative subject matter expert input. ONA supports effects-based planning and assessment, provides a range of options for application of the elements of national power, and supports risk assessment by associating primary, secondary, tertiary, and unintended effects with these actions. While ONA is a key enabler of Effects-Based Operations (EBO), current approaches to nodal identification and analysis do not fully leverage analysis that is conducted during the military decision making process (MDMP). This paper explores one method to better leverage the Center of Gravity (COG) analysis conducted during Mission Analysis to improve ONA support and to describe how ENAR links can be used when developing lines of operation (LOO).

Mission Analysis and the Effects-Based Planning

The planning cycle begins with the Mission Analysis Phase. This phase provides the general focus for the development of the ONA Database, as well as the focus for a Red and Green Cell analysis though the development of Objectives. Analysis of End State and the Objectives developed to support it are fed directly into the Priority Effects List (PEL). The PEL and the ONA are used to derive ENAR/2U linkages, which ensure the ENAR links support the commander’s Objectives. The Red-Green Analysis, also a product of End State Analysis, supports COG analysis but currently has no direct input to the ONA process or ENAR/2U linkages.
As can be seen in Figure 1, the current EBO process, ONA development does not directly leverage either the COG analysis conducted by the Red-Green Cell, or the LOO developed by planners. By conducting these processes in isolation from one another there is risk that Objectives, PEL, and ENAR links will not focus on the adversary’s COG resulting in a fundamental flaw in campaign design.

Current Nodal Analysis
ONA is based on a System of Systems Analysis (SoSA) approach that explores the relationship between Political, Military, Economic, Social, Infrastructure, and Information (PMESII) nodes. After determining a focus area, SoSA analysts conduct all-source data mining to identify the nodes (a person, place, or thing) that will provide the foundation for each system study. This analysis consists of a determination of the strengths, weaknesses, vulnerabilities, relationships and links between key nodes in each of the systems. This data is then used to support both effects-based planning and effects-based assessment. However, since this process is not tied to current doctrinal planning processes, it is often conducted in isolation from both JIPB and Mission Analysis causing great potential for a disconnect between ENAR links developed by SoSA and objective-tasks developed by planners. See Figure 2.
COG Analysis and Development

COG analysis attempts to identify an adversary’s primary sources of strategic and operational power, its Critical Capabilities (CC), Critical Requirements (CR), and Critical Vulnerabilities (CV) associated with these sources and/or capabilities (Figure 3). Unlike the detailed nodal analysis of ONA, COG analysis tends to be higher order, identifying general characteristics of a COG. COG analysis and ONA are not currently conducted in a complementary fashion, though alignment of these efforts will focus each group on pertinent adversary characteristics that pay great benefit in later stages of planning. COG analysis helps focus and shape the ONA and SoSA process by providing the operational view of enemy capabilities. In turn, the ONA process should provide planners with a detailed perspective that will reduce speculation and drive a more disciplined approach to COG analysis.
LOO Analysis and Development
LOOs represent the conceptual path from actions to effects to the Commander’s objectives. Each line can be associated with a specific component of national power (i.e. Diplomatic, Information, Military, and Economic) or with critical functions (security, governance, economic development, etc.) that provide a logical progression of major activities or establishment of critical conditions required for a successful operation. Points along the LOO (major tasks, decisive points, or critical battlespace conditions) represent key events or functions necessary to attain the desired effects, objectives, or endstate (Figure 4) and may also be used as measures of effectiveness and performance necessary for assessing the execution of an effects based plan. By using points along the LOO to measure performance and effectiveness, the LOO can be tailored to support the commander’s decision-making process by relating the actions performed to his decision points and the progress of the entire campaign.

Improving ONA Support for CONPLAN Development and Execution
At SJFHQ Pacific, ONA support during CONPLAN development is being improved by using the COG analysis process to shape the ONA nodal analysis and provide feedback to planners as they evaluate a COG’s CC, CR, and CV. In this fashion, the planner’s COG analysis helps to form a bridge between the Intelligence Community’s JIPB and the ONA process at SJFHQ. By identifying specific nodes related to the COG analysis early in the process, operational planning teams (OPT) are able to conceptualize potential node-action links that shape Concept Development and focus it on stated objectives. Conceptualizing the node-action links early also helps to more clearly define desired effects to achieve the commander’s objectives and end states. As Plan Development continues, ENAR links are used to help derive initial LOO, which in turn are fed back into the ONA process to ensure all critical nodes associated with movement
along the LOO are properly analyzed and accounted for. This iterative process improves analytical efficiency by more clearly defining areas of interest and reducing the total number of nodes in the ONA Database. Most importantly, the cross walk between Mission Analysis and ONA aligns the Planning and SoSA cell efforts, acquaints planners with a more holistic view of the adversary, and makes the nodes identified more directly relevant to the COA and Plan Development process. A conceptualization of how COG analysis can be used to shape ONA nodal analysis is provided in Figure 5.

LOO’s are also being used as templates for the construction of ENAR/2U links. The actions associated with these links would not only support the achievement of desired effects, they also support attainment of decisive points (critical fights and functions in the military LOO). Again, by leveraging the analysis used to develop LOO, the ONA team can improve efficiency, reduce the number of ENAR links, and ensure that the links that are developed are of direct relevance to the war fighter. A conceptualization of how Lines of operation and decisive points can be used to shape the development of ENAR links is provided in Figure 6.
Summary and Recommendations

ONA is a key enabler for EBP and execution. The current SoSA approach to ONA nodal development fails to leverage COG and LOO analysis conducted during the MDMP cycle. As a result, a significant amount of time is expended analyzing nodes and developing ENAR links that may never be used by operational planners. By modifying the effects-based process to leverage COG and LOO analysis (Figure 7), this approach promises to shorten the amount of analytical time spent on node and ENAR link development, reduce the number of nodes and ENAR links in the database, and make the ONA more relevant to operational planners and war fighters.

Mr. Brad Kaplan and LCDR Dave Fields are assigned to the Standing Joint Force Headquarters, United States Pacific Command. Mr. Kaplan is the Information Superiority Chief and Effect Working Group leader. LCDR Fields is the Political-Military Plans Officer and a 2005 graduate of the Joint Advanced Warfighting School.
Joint Publication 5-0, Joint Operation Planning, is nearing completion of its major overhaul, and should be on the streets in April 2006. In the 11 years since the last revision, our nation has planned, executed, and gleaned lessons from numerous worldwide operations, and is indeed in the midst of a Global War on Terror that promises to extend to at least another generation. The proposed version of JP 5-0 promises to better reflect the planning process and requirements necessary to respond to our new, dynamic, strategic environment.

The current 1995 version was an incremental improvement from the Cold War era, modifying a planning process designed to address a monolithic threat to include how to conduct Operation DESERT SHIELD and DESERT STORM. Today’s strategic landscape requires military planners to rapidly respond to multiple threats across the globe, and our civilian leadership must be able to provide cogent and dynamic strategic guidance based upon resource constraints within our government and our allies. This strategic guidance will be heavily influenced by the ability of the joint force commander to rapidly provide the President and Secretary of Defense high fidelity, executable plans with multiple options.

Taking lessons learned from the emerging Global Force Management process; Operational Availability studies; the adaptive planning initiative; the Quadrennial Defense Review; and Operations NOBLE EAGLE, ENDURING FREEDOM, and IRAQI FREEDOM, the JP 5-0 joint working group is putting the finishing touches on a planning document that promises to be more relevant to the joint force planner.

Significant changes include: addition of the new Strategic Communication planning guidance; incorporation and consolidation of Joint Operations Planning and Execution System (JOPES) contingency (deliberate) and crisis action planning; initiation of and amplification on the adaptive planning (AP) process; enhanced interagency and multinational planning considerations; regional expertise and language requirements; and the six-phase campaign construct.

The JP 5-0 joint working group is scheduled to meet one final time from 31 January through 2 February 2006. Although the draft has been out for planner coordination for some time, all recommendations for improvement are welcome and encouraged. For a copy of the latest draft, or to provide comments, please contact LTC Ed Byrne, USA, at the Joint Operational War Plans Division, J7, the Pentagon, at commercial 703-571-0969, or DSN 671-0969; e-mail at Edward.byrne@js.pentagon.mil.

LTC Ed Byrne is currently assigned to the Joint Staff, J7, Joint Operational War Plans Division as a Regional Planner for U.S. CENTCOM and U.S. STRATCOM and serves as the Lead Agent for JP 5.0.
The Joint Advanced Warfighting School (JAWS) continues progress and growth with the help of its faculty, students, alumni and faithful supporters throughout the professional military education, planning and greater defense community. Class 05-06, with 29 students, is capitalizing on the student feedback, graduate recommendations and many lessons learned from the first year of the JAWS program. The addition of four interagency students in Class 05-06 (2 Department of State, 1 Defense Intelligence Agency, 1 National Security Agency) has already proven to be quite beneficial by ensuring interagency considerations are continually woven into all seminar discussions. Once again the Services have endeavored to select JAWS students well suited to undertake the rigorous study and inquiry resident in the JAWS program.

Our current class is rapidly approaching the mid-point of the JAWS academic year, having completed their collaborative theory papers and their strategy papers and having conducted research visits to Gettysburg, the National Capital Region and both Combatant Command Headquarters at MacDill Air Force Base.

JAWS faculty are busy preparing for the April visit of the CJCS’ Process for the Accreditation of Joint Education (PAJE) team while continually revising, updating and rewriting curriculum to ensure currency and relevancy with the rapidly changing joint-warfighting landscape. The 06-07 JAWS Class will again retain interagency student participation and we expect our first U.S. Coast Guard officer in the student ranks.

Finally, JAWS is bidding farewell to Colonel Stevenson “Sting” Ray (USAF) as he departs for an assignment at Lackland AFB, Texas; the JAWS Team looks forward to the early Spring arrival of Colonel Bill “Bigfoot” Eliason, a USAF SAASS graduate currently serving at USJFCOM.

### Upcoming Events

27 February to 2 March: Component Week
- **Service Advanced Programs** provide day-long class on their respective component

9-10 March: Joint Senior Leaders Course (JSLC)
- **Conducted by the Joint Requirements Office (JRO)** CBRN Defense, Joint Staff J-8.

10-13 April: Joint Special Operations University course

24-27 April: COCOM West Trip

16 June: JAWS Graduation
JAWS Operational Art and Campaigning Publications

The following campaign planning publications are available from the Joint Advanced Warfighting Schools, Department of Operational Art and Campaigning web site.

http://www.jfsc.ndu.edu/schools_programs/jaws/publications.asp

Case Studies

- Horatio Nelson and the 1798 Mediterranean Campaign
- The Mexican American War

War Plans

The following collection of war plans are from the Joint Forces Staff College Library. These are original World War II campaign plans that have been scanned electronically to enable easy accessibility by students of campaign planning. Each campaign plan consists of a background introduction (Word document) followed by the original plan in PDF format.

- Introduction Reno IV Outline Plan
  - RENO IV Outline Plan 6 March 1944
- Introduction Mindoro Operations Instruction NO. 74 MINDORO
  - Operations Instruction NO. 74 MINDORO 13 October 1944
- Introduction to Tarakan Island Operations Instruction NO. 99
  - Operations Instruction NO. 99 Tarakan Island 21 March 1945
- Introduction to Operation “ECLIPSE”
  - Operation “ECLIPSE” Appreciation and Outline Plan 24 November 1944
Update: Degree Granting Authority

The Defense Authorization bill was signed by the President on 6 January 2006. This bill authorizes the National Defense University to award graduates of the Joint Advanced Warfighting School (JAWS) a Masters of Science Degree in Joint Campaign Planning and Strategy. The bill is grandfathered to include the 2005 JAWS graduates. Following is the language authorizing the degree.

“Subtitle C-Education and Training

PART I-DEPARTMENT OF DEFENSE SCHOOLS GENERALLY

SEC. 521. AUTHORITY FOR NATIONAL DEFENSE UNIVERSITY AWARD OF DEGREE OF MASTER OF SCIENCE IN JOINT CAMPAIGN PLANNING AND STRATEGY.

(a) JOINT FORCES STAFF COLLEGE PROGRAM.-Section 2163 of title 10, United States Code, is amended to read as follows: "§ 2163. National Defense University: master of science degrees

"(a) AUTHORITY TO AWARD SPECIFIED DEGREES.-The President of the National Defense University, upon the recommendation of the faculty of the respective college or other school within the University, may confer the master of science degrees specified in subsection (b).

"(b) AUTHORIZED DEGREES.-The following degrees may be awarded under subsection (a):

"(1) MASTER OF SCIENCE IN NATIONAL SECURITY STRATEGY.-The degree of master of science in national security strategy, to graduates of the University who fulfill the requirements of the program of the National War College.

"(2) MASTER OF SCIENCE IN NATIONAL RESOURCE STRATEGY.-The degree of master of science in national resource strategy, to graduates of the University who fulfill the requirements of the program of the Industrial College of the Armed Forces.

"(3) MASTER OF SCIENCE IN JOINT CAMPAIGN PLANNING AND STRATEGY.-The degree of master of science in joint campaign planning and strategy, to graduates of the University who fulfill the requirements of the program of the Joint Advanced Warfighting School at the Joint Forces Staff College. exercised under regulations prescribed by the Secretary of Defense.".

(b) CLERICAL AMENDMENT.-The item relating to section 2163 in the table of sections at the beginning of chapter 108 of such title is amended to read as follows:

"2163. National Defense University: master of science degrees."

(c) EFFECTIVE DATE.-Paragraph (3) of section 2163(b) of title 10, United States Code, as amended by subsection (a), shall take effect for degrees awarded after May 2005."

Services are currently working to have the degrees annotated to officer records. Degree certificates will be mailed to 2005 JAWS graduates during late January to early February 2006. Please ensure Mrs. Joanne Hooper hooperj@jfsc.ndu.edu has your current mailing address.
Intent

The Joint Advanced Warfighting School (JAWS) is envisioned to populate the Joint Staff and combatant commands with a cadre of officers expert in the joint planning processes and capable of critical analysis in the application of all aspects of national power across the full range of military operations. Graduates will be capable of synergistically combining existing and emerging capabilities in time, space and purpose to accomplish a range of operational or strategic objectives.
Disclaimer: The views expressed in this journal are those of the authors and do not represent the views of the Joint Forces Staff College, National Defense University or the Department of Defense.